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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,394	06/29/2001	Katsuto Koyama	109806	6005

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EXAMINER

MAKI, STEVEN D

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 10/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

2010

Office Action Summary

Application No.

09/893,394

Applicant(s)

KOYAMA ET AL.

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s). 8
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9 6) ☐ Other:

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- 1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2) Claims 1-5 and 7-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it is unclear if the claim is limited to producing a tread per se (as indicated by the preamble "producing a tread for a tire") or a tire (as indicated for example by "winding ... on a tire material" (claim 1), "belt cord coating" (claim 7), etc.). In claim 1 line 1, it is suggested to change "a tread for a tire" to --a tire having a tread--.

Claims 3, 5 and 11 are indefinite because they appear to be inconsistent with claim 1. It is unclear if claims 3, 5 and 11 change the "body" limitation to a "ribbon limitation".

In claim 4, it is unclear what additional limitation is being required. Claim 4 describes a "body" limitation, but the "body" limitation was added to claim 1.

- 3) Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

The subject matter described in claim 4 was added to claim 1.

- 4) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5) Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 3, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the combination of the subject matter of "winding an uncured tread rubber ... formed as an integral extrusion shaped body" (claim 1) and "a whole of the uncured tread rubber is constructed by winding a ... ribbon" (claim 3). The original disclosure considers the terms body and ribbon to be mutually exclusive terms. The subject matter of using a body to form the whole of the tread rubber is inconsistent with the subject matter of using a ribbon to form the tread rubber. The original disclosure describes each of these limitations but fails to teach using a body to form the whole of the tread rubber and using a ribbon to form the tread rubber.

6) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

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only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8) **Claims 1-5 and 7-11 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sergel et al (US 2001/003255).**

Sergel et al discloses making a tire by rotating a partial tire, winding a first strip on the partial tire and winding a second strip on the partial tire (figure 1). Since the strips can be wound sequentially (paragraph 7), one strip is wound before or after the other strip. The strips are arranged on different areas in the inner or the radially outer zone (paragraph 7). The strip is extruded (paragraph 28). One strip comprises rubber and carbon black. This strip has a high electrical conductivity. The other strip comprises rubber and silica. This strip has a low electrical conductivity. At paragraph 11, Sergel et al teaches that the silica strip may be a "single thick strip". In the illustrated exemplary embodiment (figure 2), a carbon black strip 2b and a silica strip 2a are used to form the tread. The carbon black portion of the tread extends from an inner surface of the tread to a ground contacting surface of the tread. The three silica portions of the tread are at the ground contacting surface of the tread. The carbon black portion of the tread is in contact with the conductive layers of the tire such as the rubber coating of a bracing ply.

As to claims 1-5 and 7-11, the claimed method is anticipated by the method of Sergel et al. The claimed high electrically conductive rubber ribbon corresponds to the conductive layer of the tire such as the rubber coating of a bracing ply. The claimed uncured high electrically conductive rubber ribbon corresponds to the carbon black reinforced rubber strip. The claimed uncured tread rubber made from low electrical conductive rubber and formed as an integral extrusion shaped body corresponds to the silica reinforced rubber strip. In any event: it would have been obvious to wind a silica reinforced rubber strip in the form of "an integral extrusion shaped body" before or after winding the carbon black reinforced strip on the conductive rubber layer of the tire since (1) Sergel et al expressly teaches winding the extruded strips sequentially instead of simultaneously and (2) Sergel et al suggests that the silica reinforced rubber strip may be in the form of a "single thick strip".

As to the dependent claims: As to claims 2-5, note that Sergel et al's teaching to use a silica reinforced strip to form the silica reinforced portion(s). As to claim 7, note Sergel et al's teaching to establish an electrical path using a rubber coating of a bracing ply / belt which one of ordinary skill in the art would readily understand comprises cords. In any event: it would have been obvious to use a belt comprising cords in rubber as the conductive layer under the tread since Sergel et al teaches that the tire has a belt and a belt for a tire comprising cords in carbon black reinforced rubber is taken as well known / conventional per se in the tire art. As to claims 8-11, note Sergel et al's teaching to form a base cap tread.

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9) **Claims 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sergel et al (US 2001/0035255) as applied above and further in view of Europe '452 (EP 658452).**

Sergel et al is considered to anticipate claims 2 and 5. In any event: It would have been obvious to one of ordinary skill in the art to wind the silica reinforced rubber, *then* the carbon black reinforced rubber and *then the remaining portion* of the silica reinforced rubber since (1) Sergel et al teaches winding the carbon black reinforced strip and silica reinforced strip in different areas such that the resulting carbon black reinforced portion forms an electrical path for static discharge and (2) Europe '452 suggests arranging a carbon black reinforced portion 12 between two silica reinforced portions of a tread to establish an electrical path for static discharge.

10) **Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sergel et al (US 2001/0035255) as applied above and further in view of Gerresheim et al (US 5942069) and / or Europe '903 (EP 925903).**

Sergel et al is considered to anticipate claims 8 -11. In any event: As to claims 8-11, it would have been obvious to one of ordinary skill in the art to form a **base cap tread** by *winding* a carbon black reinforced rubber strip to form the high electrically conductive base, *winding* a silica reinforced rubber strip to form a low electrically conductive base and *winding* a carbon black reinforced rubber strip to form an electrically conductive layer which forms the desired electrically conductive path since (1) Sergel et al suggests forming a **base cap tread** by winding a carbon black reinforced rubber strip to form the high electrically conductive base and winding a silica

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reinforced rubber strip to form a low electrically conductive cap, (2) Sergel et al suggests establishing an electrically conductive path from the tread surface to a conductive layer below the tread and (3) Gerresheim et al and / or Europe '903 suggest forming an electrical path from a ground contacting surface of a **base cap tread** to a conductive layer below the base cap tread using a carbon black reinforced conductive layer *separate from* the base and the cap. In Gerresheim et al, the separate conductive layer is formed by arranging a conductive (carbon black reinforced) strip 22 on a shoulder of the base cap tread (figures 1, 15). In Europe '903, the separate conductive layer is a carbon black reinforced strip 51 extending through a low conductive cap rubber and a high conductive base rubber (figure 24). Gerresheim et al and Europe '903's teachings relating to arrangement of carbon black reinforced material and silica reinforced material for a tire tread are applicable to Sergel et al since all three of these references are in the same field of endeavor and are directed to the same problem of ensuring electrostatic discharge in a tread having both silica reinforced and carbon black reinforced portions.

As to claim 9, the limitation therein would have been obvious in view of (a) Sergel et al's teaching to form a conductive path by winding a carbon black reinforced strip and (b) Europe '903's suggestion to extend a carbon black reinforced strip through a base cap tread.

As to claim 10, the limitation therein would have been obvious in view of

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(a) Sergel et al's teaching to form a conductive path by winding a carbon black reinforced strip and (b) Gerresheim et al's suggestion to arrange a (carbon black reinforced) conductive strip on the side faces of the base cap tread.

As to claim 11, Sergel et al suggests winding strips to form the base and cap.

Remarks

11) Applicant's arguments with respect to claims 1-5 and 7-11 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 6-17-03 and 8-20-03 have been fully considered but they are not persuasive.

With respect to applicant's arguments regarding Japan '917, Sergel et al clearly teaches winding a silica reinforced low electrically conductive strip and winding a carbon black reinforced high electrically conductive strip.

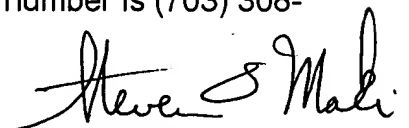
12) No claim is allowed.

13) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is 703-308-2068. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki
October 29, 2003


STEVEN D. MAKI 10-29-03
PRIMARY EXAMINER
GROUP T300
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